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CONTENTS

LITERATURE REVIEW

- Title page p6
- Abstract p7
- Introduction p9
- Search criteria p10
 - **Table 1:** Databases searched and keywords used p11
- **Table 2:** UK behavioural community group weight management interventions p12
- Results p16
- Analysis of interventions p17
 - Sample population characteristics p17
 - Recruitment p17
 - Dosage p18
 - Pre-intervention assessment p19
 - Group dynamics p20
 - Group leader impact p21
 - Physical activity as integrated component p22
 - Ongoing support p23
- Attrition p25
 - Attrition in the wider literature p26
 - Attrition and weight loss expectations p27
 - Complexity of attrition p28
 - Structural problems in researching attrition p28
- Qualitative evaluation of interventions p30
- **Table 3:** Potential modifications for improving person-centredness and reducing attrition of lifestyle weight management programmes p33
- Person-centred weight management? p35
 - **Text box 1:** Principles of person-centred weight management p35
 - Progress towards person-centred weight management p36
 - Challenges to person-centred weight management p36

- Future directions p38
- Conclusion p39
- References p41

RESEARCH PROJECT

- Title page p53
- Journal selection p54
- Abstract p55
- Introduction p57
- **Figure 1:** *Get Moving with Counterweight intervention description* p59
- Method p60
 - Design p60
 - Ethics p60
 - Recruitment & Sampling p60
 - **Figure 2:** *Study recruitment and data generation* p61
 - Data collection p61
 - Reflexivity analysis p62
- Analysis p63
- **Table 1:** *Participant characteristics (self-reported)* p65
- Results p67
- **Table 2:** *Reasons for non-attendance* p68
 - Themes: Uncertainty p68
 - Initial engagement p68
 - Physical activity participation p69
 - **Figure 3:** *Participant's self reported co-morbidities* p71
 - Group dynamics: Someone like me p72
 - Group leaders p73
 - Physical activity: The need for individualisation p74
 - What works? Component significance p76
 - Non-completers: A different perspective? p78
- Discussion p80

- Initial engagement p80
 - Individualisation p81
 - Group dynamic p81
 - Person-centred weight management p83
 - Strengths and limitations p84
- Conclusion p85
- Appendix 1: Indicative interview topic questions p86
- Appendix 2: South East Scotland Research Ethics Service letter p87
- Appendix 3: University of Chester, FREC approval letter p89
- Appendix 4: Initial contact form p91
- Appendix 5: Letter of invitation p93
- Appendix 6: Consent form p94
- Appendix 7: Group leader information sheet p95
- Appendix 8: Participant information sheet p98
- References p101

RESEARCH MODULE XN7211

LITERATURE REVIEW PAPER

Moving towards person-centred weight management: A literature review of factors affecting engagement and retention in community-based, multi-component, group lifestyle weight management interventions in the United Kingdom.

Word Count: 5191

ABSTRACT

Background

Weight management programmes commonly experience high attrition rates, reducing both effectiveness and efficiency. Reasons for attrition remain unclear. Evaluating participant experience promotes identification of improvements not obvious to service providers, developing a more person-centred service, whilst potentially reducing attrition.

Aim of review

To explore factors impacting engagement and attrition of non-commercial group-based lifestyle weight management programmes in the UK, with specific reference to qualitative evaluations of participant experience.

Data sources

Electronic databases (PubMed, PsychINFO) and reference lists of relevant studies were searched.

Findings

Five different interventions, all including participant evaluation, were identified. Heterogeneity between studies prevented definitive conclusions. Targeted interventions, use of social marketing, pre-intervention assessment and an integrated physical activity component all potentially promote effectiveness, person-centred delivery and reduce attrition. Impact of group leader background appears negligible. Non-completers views are rarely evaluated.

Conclusion

UK group-based weight management programmes are evolving away from a one-size-fits-all health professional delivery model. Further research on effectiveness, attrition and person-centred delivery is required. Work on accessing non-completers views needs prioritised.

INTRODUCTION

Scottish obesity rates are amongst the highest in Europe with 64.3% of adults overweight (Body Mass Index (BMI) > 25kg/m²) or obese (BMI > 30kg/m²) (Scottish Government, 2012), with direct healthcare costs predicted to almost double by 2030 (Scottish Government, 2010a). The challenge for primary care remains how to best target limited resources at this “industrial scale” (National Obesity Observatory, 2009) public health issue (Counterweight Project Team, 2004).

Current guidelines for lifestyle weight management programmes recommend inclusion of dietary, physical activity (PA) and behavioural components (Scottish Intercollegiate Guidelines Network (SIGN), 2010; National Institute for Health and Social Care Excellence (NICE), 2014), with group approaches increasingly the current entry point to treatment (McCombie, Lean & Haslam, 2012). In contrast to standard weight management care (one individual primary care dietetic appointment per person) (Read, Ramwell, Storer & Webber, 2004), groups allow greater reach of interventions and improved cost efficiency (Jolly et al., 2011), with potentially greater weight loss than individual therapy (Renjilian et al., 2001). However, analysis of current interventions in the United Kingdom (UK) found no single best fit, due to heterogeneous populations and contexts. This suggests that proposed solutions require tailoring (McCombie et al., 2012). Evidence on clinical and cost-effectiveness appears unclear (NHS Quality Improvement Scotland, 2010) resulting in patchy provision of local initiatives as service providers adopt differing approaches (Logue, Allardice, Gillies, Forde & Morrison, 2014).

Retention and engagement of participants remain key challenges in programme delivery, adversely affecting participant outcomes and cost efficiency (Moroshko, Brennan & O'Brien, 2011). Historically few health service weight management interventions have considered programme effectiveness from the participant's perspective (Garip & Yardley, 2011), yet this person-centred focus is now a key national priority for NHS Scotland, supported by legislation in the Scottish Government's Patient Rights (Scotland) Act 2011 (Scottish Government, 2014). Consequently, exploration of person-centred factors that impact on success provides a logical basis for intervention optimisation (Garip & Yardley, 2011; Counterweight Project Team, 2008a).

SEARCH CRITERIA

PubMed and PsychINFO databases were searched using the terms summarised in Table 1. Inclusion criteria were lifestyle weight management programmes, identified as non-specialist, first line, community-based "Tier 2" services (NICE, 2014). Studies including more specialist Tier 3 and 4 services were excluded for serving a more complex population. Heterogeneity in primary care structures globally meant studies were limited to the UK. Commercial weight management groups were excluded due to differing in terms of access, population and group leader characteristics from non-commercial groups (Allan, Hoddinott & Avenell, 2011; Jolly et al., 2011), combined with poor methodology through over reliance on self-reported weights (Madigan, Daley, Lewis, Jolly & Aveyard, 2014). The reference lists of relevant articles were searched for further studies.

Table 1: Databases searched and keywords used

Databases searched		Coverage
PubMed		2000 to Jan 2014
PsychINFO		2000 to Jan 2014
Search terms used		
'weight loss programme'	retention	'patient-centred'
'weight loss intervention'	attrition	'user-centred'
'weight management programme'	engagement	'participant views'
'weight management intervention'		'patient experience'

Table 2: UK behavioural community group weight management interventions

Study/ Year/ Area	Subjects (age=years BMI=kg/m ²) mn=mean)	Referral route/ delivery context	Intervention (groups)	Results: weight loss (% body weight) @ 12m*	Time frames/ Retention	Qualitative results	Notable strengths & weaknesses
Counterweight UK Counterweight Project Team, 2008a, 2008b, evaluation of multiple sites, UK	n=1906 Age: 18-75 mn: 49.4 Female: 77% BMI ≥30 or ≥28/ comorb ¹ mn: 37.1	General Practice delivered by practices nurses	1 st 3m: 6 x 2/52 appts, (total 6h), then 1 appt every 3m to 1 yr (9 total), BC, diet & PA advice,	ITT 13.9% ≥ 5% Completer 30.7% ≥ 5%	@ 3m: 55% @ 6m: 39% @ 12m: 45%	Individual interviews (n=18) & 3 focus groups (n=22), limited details of sampling & thematic analysis ^b . Identifies programme facilitators: free, endorsed by GP, personalised approach, structured programme. Barriers: Low self-efficacy, unclear expectations & understanding of intervention, lack of perceived success.	Strengths: Diverse population data, implemented in multiple sites proving reliability & validity. Weaknesses: Individual and group data analysed together, 34% group intervention, no integrated PA component. Poor description of thematic analysis.
Counterweight Scotland Counterweight Project Team 2012 evaluation of multiple sites, Scotland	n=6715 Age: 45-64 mn: 53 Female: 74% BMI ≥30 or ≥28/ comorb ¹ mn: 37	General practices, pharmacies community services, delivered by health staff	No direct PA	ITT 10% ≥ 5% Completers 35.2% ≥ 5%	@ 3m: 55% @ 6m: 37% @ 12m: 28%	None available	As above. 26% BMI ≥ 40kg/m ² High social deprivation, targeted at hard to reach population

<p>Read, Ramwell, Storer & Webber, 2004</p> <p>Pilot study</p> <p>Nottingham UK</p>	<p>n=216 Age: 18-65 mn: 50.4 Female: 74%</p> <p>BMI\geq30 with CHD risk factors², mn: 39.7</p> <p>71% had CHD</p>	<p>General Practice/primary care, including self-referral.</p> <p>Delivered by dietician</p>	<p>7 x 2hr appts to 3m (total 14h) then 4m, 6m, 12m BC, diet & PA advice</p> <p>No direct PA</p>	<p>ITT 4% =10% 13%: 5-10%</p>	<p>@3m: 60% @12m 35%</p>	<p>1st 3m drop out questionnaire (31% response) reasons: Work & family commitments, childcare issues, session timing, preferring self-management. Maintenance dropout questionnaire (29% response): inconvenient sessions, work commitments & childcare problems. "Usefulness" of sessions dropped from 98% when 2/52 to 23% when 3/12 apart.</p>	<p>Higher mean BMI than other studies, with 71% existing CHD so study population potentially more co-morbidities & lower PA ability. Maintenance non-completers lost significantly less weight @ 3m than completers.</p> <p>Strength: Non-completer feedback included</p> <p>Weakness: No control group</p>
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<p>New Life New You (NLNY) Penn, Ryan & White 2013</p> <p>Pilot for planned regional roll out</p> <p>Middlesbrough UK</p>	<p>n=218 Age: 45-65 mn: 53.6 Female: 69%</p> <p>High risk T2DM, high SD</p> <p>BMI mn: 33.5 29% BMI >35</p>	<p>Self referred from targeted social marketing</p> <p>Delivered in leisure centres by fitness trainers</p>	<p>Twice weekly 90 min sessions for 10 weeks, (total 30h) BC, diet & direct PA. Follow up: text & email reminders, drop-in sessions & free leisure service access for high attenders</p>	<p>ITT 21% \geq 5%</p>	<p>@10wks 82% @ 12m 61%</p>	<p>Interviews: purposive sample completers only (n=15)^c. Positive features: individualised PA routines, individual assessment promoted engagement, social support & identity of group. Barriers: embarrassment doing PA, ongoing cost of gym, time commitment & potential for disruptive elements within group. No evaluation of non-completers experience.</p>	<p>Strengths: Good retention rates; individualised initial assessment allowed tailoring of group intervention. Socio-economically disadvantaged population</p> <p>Weaknesses: no control group, 2% participants normal weight, poor ethnic minority uptake. Ill-defined exclusion criteria of inability to participate in moderate PA.</p>
	<p>n= 747 Age: 35-65 mn: 47 Men only</p> <p>BMI \geq28 mn: 35.3</p>	<p>Self-referral from targeted social marketing</p> <p>By (male) community coaches</p>	<p>12/52: weekly 90 min sessions (total 18h) @ football stadia BC, diet & direct PA. Follow up emails, reunion @ 9m</p> <p>Group size 15</p>	<p>ITT 39% \geq 5%</p>	<p>@ 3m 88% @ 12m 89%</p>	<p>Pilot^d (n=103) & optimisation^e (n=303) studies pre-RCT: more variety of PA & simplify dietary guidance. Focus groups (n=26) <i>likes</i>: banter, "like us" shared identity, simple guidance. <i>Dislikes</i>: raising sensitive issues, theory sessions running over. Interviews (n=11): Non-completion reasons as work (n=3), health (n=3), moving away (n=2), family (n=2), lack of variety in programme PA (n=1). FITT focus groups^f (n=63): "draw" of club motivational.</p>	<p>Strengths: Full RCT with control group & good numbers; innovative approach with diverse socio-economic spread. Non-completer feedback included.</p> <p>Weaknesses: few ethnic minorities, 12 month data incentivised & enhanced by home visits thereby reducing validity of attrition comparisons.</p>

CAMELEON Gray et al. 2009 Pilot study Forth Valley Scotland	n=105 Age: 23-74 mn: 51 high SD Men only BMI \geq 30 or WC \geq 102 (no mean given)	Men's health clinic/ general practice By men's health nurse	12/52 weekly evening sessions (total 12h) BC, diet, PA advice. Group size 12	No 12m outcomes 44.3% (of completers NB not ITT) >5% @ 3m	@ 3m 76%	2 participant focus group interviews (n=8): likes: personalised approach, use of humour, peer support, men only. Potential drop out reasons, holidays, health issue, work commitments, boredom, feeling out of place, disappointing weight loss	Early version of theoretical component of FITT Strength: Calculates reach of intervention. Weaknesses: No 12m outcomes, 7% < BMI 30.
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* All readings objectively measured **y**=years of age, **m**= months, **BMI**=Body Mass Index measured in weight (kg)/ height (m)², **SD**=Social Deprivation, **CHD**=Coronary Heart Disease, **T2DM**=Type 2 Diabetes Mellitus, **WC**=Waist Circumference, **PA**=Physical Activity, **BC**=Behaviour Change, **ITT**=Intention to Treat analysis, **RCT**=Randomised Control Trial.

¹ With at least one obesity-related comorbidity

^a Hunt, Wyke, Gray, Anderson, Brady, Bunn et al., 2014,

^b Counterweight Project Team, 2008b,

^c Penn, Dombrowski, Sniehotta & White, 2013,

^d Gray, Hunt, Mutrie, Anderson, Treweek & Wyke, 2013,

^e Gray, Hunt, Mutrie, Anderson, Leishman, Dalgarno & Wyke, 2013, ^f Hunt, Gray, Maclean, Smillie, Bunn & Wyke, 2014.

RESULTS

Table 2 demonstrates that of the five interventions identified (Counterweight evaluated two rollouts), using an Intention to Treat (ITT) basis, Counterweight Scotland had the lowest proportion of subjects losing $\geq 5\%$ body weight at 10% (Counterweight Project Team, 2012), compared to the highest of 39% by Football Fans in Training (FITT) (Hunt, Wyke, Gray, Anderson, Brady, Bunn et al., 2014). Respective retention rates mirror this relationship.

Penn, Ryan and White's (2013) New Life New You (NLNY) intervention is described as Type 2 Diabetes Mellitus (T2DM) prevention. Yet the essential intervention components of diet, physical activity and behaviour modification, alongside the primary outcomes of weight loss, increased physical activity and healthy eating, match the guidelines for weight management interventions detailed earlier. The one significant difference is referral criteria based on elevated diabetic risk rather than BMI. Mean BMI for NLNY is 33.5 kg/m^2 , plus 29% of subjects showed a $\text{BMI} > 35 \text{ kg/m}^2$, making it comparable to the other studies. Thus it appears appropriate for inclusion, to maximise shared learning from these differently labelled, but inherently similar, interventions, as commonly done elsewhere in the evidence base (Wadden, Webb, Moran & Bailer, 2012).

Counterweight's published data is not group specific, including both group and individual treatments. However as no major differences exist between group and individual data (personal communication, January 22, 2014) and this review

provides the context for evaluation of a modified Counterweight intervention, it was relevant to include for analysis.

ANALYSIS OF INTERVENTIONS

Sample population characteristics

Study populations showed similarities for mean age (47-53.6 years), BMI (33.5-39.7 kg/m²) and low ethnic minority representation. Socioeconomic demographics showed greater diversity as NLNY, Counterweight Scotland and Chameleon (Gray et al., 2009) targeted highly socially deprived populations, whilst Football Fans In Training (FITT) & Counterweight UK (Counterweight Project Team, 2004, 2008a) included a broader range. FITT's feasibility study found no marked differences in baseline measurements or demographics of completers & non-completers (Gray, Hunt, Mutrie, Anderson, Treweek & Wyke, 2013). NLNY found non-completers at ten weeks, six and twelve months, were from significantly more deprived areas than those continuing (Penn, Ryan & White, 2013), supported by recent findings from Morrison et al. (2012).

Recruitment

The interventions differed in recruitment route with Counterweight and Read, Ramwell, Storer & Webber (2004) using standard general practice referral routes, whilst FITT and NLNY employed social marketing techniques to target specific populations. Penn, Ryan & White (2013) suggest that self-selection produces a more motivated population, but found social marketing time consuming. They suggest that recruitment via signposting from NHS health checks is possible, but

likely to reduce retention rates. Social marketing involves a high degree of word of mouth recruitment, offering the strong likelihood of pre-existing social support amongst participants, conducive to retention and engagement (Hunt, Wyke, Gray, Anderson, Brady, Bunn et al., 2014).

In contrast some individuals experience ambivalence from primary health care professionals regarding weight management (Brown, Thompson, Todd & Jones, 2007), negatively affecting engagement and retention (Counterweight Project Team, 2008b). Whilst Counterweight declare empowerment a key programme characteristic (Counterweight Project Team, 2005) the extent of this is arguable, with recruitment itself dependent on professional referral, minimally empowering the individual. The attrition rates in Table 2 support the view that indiscriminate recruitment of primary care populations is likely to have limited success (Toth-Capelli, Brawer, Plumb, Daskalakis, 2013), whilst targeting interventions, for example, by gender as in FITT and Cameleon appears to promote engagement and retention (Stubbs & Lavin, 2013).

Dosage

In accordance with national guidance each intervention featured a three-month intensive phase (SIGN, 2010; NICE 2014). However, large disparity exists in dosage and intensity, from Counterweight's one hour fortnightly (equalling six hours over intensive phase) up to NLNY's three hours weekly (equalling thirty hours over intensive phase). This confounds simple comparison as a dose-response relationship is strongly supported in dietary & physical activity interventions

(Greaves et al., 2011), with engagement strongly associated with effectiveness (Moroshko et al., 2011; Jolly et al., 2011), potentially through promoting adherence & motivation (Truby & Bonham, 2011). Jolly et al. (2011) report similar difficulties in comparing primary care interventions with higher dose community alternatives. Whilst optimal dosage remains unclear (Greaves et al., 2011), it needs to be regular enough to promote group cohesion and intervention adherence (Toth-Capelli et al., 2013), without being overly demanding, as conflicting time commitments appears a primary cause of attrition, particularly by those employed or with families (Inelman et al., 2005; Dalle Grave, Suppini, Calugi & Marchesini, 2006). Despite requiring a high time commitment NLNY's dosage demonstrated strong retention, possibly due to the integrated PA component reducing the need to make a separate time for exercise.

Pre-intervention assessment

All the interventions undertook varying degrees of pre-assessment, including motivational assessment and collection of anthropometric and medical data for analysis. Read et al. (2004), Cameleon and NLNY all undertook individual assessments. Significantly these assessments facilitated participants meeting key staff, establishing rapport and thereby potentially reducing apprehension and fear regarding attendance. Cameleon and NLNY also promoted engagement by providing detailed intervention information and gaining commitment. Additionally NLNY applied motivational interviewing (MI) in response to participants' baseline motivation and assessed individual preferences regarding group setting to determine optimal placement of participants within groups. Significantly this

allowed a strong degree of individualisation within the group programme, moving away from a one-size-fits-all approach, arguably the major disadvantage of group programmes (Read et al., 2004). Essentially this extended motivational assessment forms the initial part of the intervention itself, incorporating important cognitive strategies into the exercise referral process (Marchant, 2011; Toth-Capelli et al., 2013), representing a missed opportunity if used simply for data collection.

Recruitment for Read et al.'s (2004) and NLNY's sample involved assessment for increased health risk (coronary heart disease (CHD) risk and T2DM), known to facilitate behavioural change (Russell, Rufus, Fogarty, Fiscella & Carroll, 2013).

Group Dynamics

Qualitative evaluations highlighted the benefit of a supportive group and its value in providing a sense of belonging, encouragement and enjoyment, all facilitating retention (Gray, Hunt, Mutrie, Anderson, Leishman, Dalgarno et al., 2013; Russell et al., 2013; Withall et al., 2011). A sense of being "all new together" minimised initial social discomfort (Penn, Dombrowski, Sniehotta & White, 2013), with closed groups maximising group cohesion.

The individualisation of NLNY promoted the formation of "like-minded" groups, matched for gender, ability and PA preferences and promoting formation of social networks supportive of behaviour change (Penn, Dombrowski et al., 2013). Male gender-sensitised approaches to interpersonal and group dynamics, including use of humour, a non-directive approach and avoidance of a diet-focussed approach, promoted group connection (Gray et al., 2013). Maximising the cohesiveness of

group-based interventions appears valuable in reducing attrition (Garip & Yardley, 2011).

Group leader impact

Analysis of group leader background shows primarily healthcare professionals providing the older, primary care hosted interventions, broadening out to specially trained community coaches and fitness trainers for FITT and NLNY. Neither study nor the wider evidence (Greaves et al., 2011) identifies this as problematic, with FITT employing intervention fidelity to ensure rigour. Indeed strong arguments exist for such an approach to Tier 2 interventions. Fundamentally availability and cost of dietitians is prohibitive (Read et al., 2004; Wadden et al., 2013).

Furthermore health professionals are not routinely trained in PA competencies, severely limiting the provision of integrated PA. Finally health professionals' working culture revolves around a biomedical model focussed on morbidity & mortality, where the "expert" health professional didactically advises the passive, uninformed patient on their health (Weston, 1998). Whilst this culture is slowly changing with an increased emphasis on partnership working and promotion of self-management (Panagioti et al., 2014), the use of community fitness professionals situated in normative community facilities such as leisure centres & football grounds de-medicalises weight management, through adoption of a less stigmatising, more empowering approach (Penn et al., 2011).

Physical activity as an integrated component

The interventions contrast markedly in their approaches to physical activity (Table 2). The older interventions of Counterweight, Cameleon and Read et al., (2004), simply advised about physical activity (PA), whereas the newer interventions of FITT and NLNY integrated actual PA as a core component, encouraging experiential learning (Kolb & Kolb, 2005). This offers a more empowering approach, emphasising the development of self-management skills (Silva, 2011).

Participants described previously difficult and embarrassing experiences of PA as a huge barrier to participation, perceiving themselves as lacking in competence and confidence regarding PA (Withall et al., 2011). This lack of belief in oneself to successfully execute a desired behaviour, known as self-efficacy (Silva, 2011), along with other psychosocial variables such as motivation and social support is likely to be highly influential in achieving weight loss (Herriot, Thomas, Hart, Warren & Truby, 2008), although difficulties in measurement make its precise role unclear (Teixeira, Going, Sardinha & Lohman, 2005).

Participant feedback reinforces the idea that gradual introduction to PA, with a sense of “all being new together” as practised by FITT and NLNY, helps overcome barriers, through increasing self-efficacy (Penn, Dombrowski et al., 2013). Vinkers, Adriaanse and de Ridder (2013) support this, finding that changes to self-efficacy can happen *during* treatment, with completers reporting a decrease in perceived difficulty of weight loss alongside an increase in self-efficacy. In theoretical terms this experiential learning effectively moves individuals from contemplation to

action in the Transtheoretical model of behaviour change in a way that advice alone struggles to achieve (Waldrup, 2006). Importantly, NLNY intentionally offered activities available in usual leisure facility provision, promoting transition to a sustainable and independent pattern of PA post-intervention (Penn, Ryan & White, 2013).

Despite a lack of clarity over both the exact role of PA in weight loss and how to optimise behaviour change (Michie et al., 2011), the evolution of intervention design to include a PA component, is supported by Read et al.'s (2004) own recommendation to explore integration of a tailored PA component, advice being inadequate. "Cameleon's" progression into "FITT" adds more support, whilst this review forms the contextual basis for an evaluation of Get Moving with Counterweight, a modification of Counterweight including integrated PA component. This development is supported by wider evidence linking integrated PA to higher retention (Spring et al., 2014) and effectiveness which FITT and NLNY demonstrate. However heterogeneity between the interventions under analysis precludes definitive conclusions regarding integrating PA, with further studies required.

Ongoing support

Weight regain after the intensive programme phase is extremely common (Table 2) (Wadden et al., 2012), with participants themselves frequently requesting ongoing support (Gray, Hunt, Mutrie, Anderson, Leishman et al., 2013) and follow-up prompts associated with maintenance of behaviour change. The optimal

maintenance regime remains unclear (Wadden et al., 2012) with further research required (Fjeldsoe, Neuhaus, Winkler & Eakin, 2011). Strategies employed include face-to-face structured follow-up (Counterweight Project Team, 2008b; Read et al., 2004), “drop-ins” (NLNY) and reunions (FITT). Research into remote support by Internet, social media, text (NLNY) and email (FITT) is increasing, offering significant potential (Appel et al., 2011) but is still very much evolving (Williams, Hamm, Shulhan, Vandermeer & Hartling, 2014).

ATTRITION

Analysis of attrition in interventions

Table 2 highlights the key challenge of high attrition rates, despite relatively intensive resources, adversely affecting participant outcomes and cost efficiency (Moroshko et al., 2011). Attrition constitutes a complex, multi-dimensional and frequently under-reported problem, due to associations with poor intervention quality (Dalle Grave et al., 2006).

FITT's unusually low 12 month attrition rate (11%) should be treated with caution as participants were sent repeated reminders using different media, incentivised with a £40 voucher and offered home visits to maximise data collection (Hunt, Wyke, Gray, Anderson, Brady, Bunn et al., 2014). Whilst these strategies can be utilised for a well-resourced clinical trial, translation into the real world context of pragmatic service provision is unlikely (van Weel, Roberts & De Maeseneer, 2012). Given that the feasibility study found that utilising home visits halved the attrition rate from 43.1% to 22% (Gray, Hunt, Mutrie, Anderson, Treweek & Wyke, 2013), it is possible to calculate that without them the retention figure would be 57%, much more comparable with the other studies evaluated.

In contrast Counterweight Scotland's (2012) 72% rate is likely to reflect being largely targeted at a population not routinely engaging with general practice, making data collection challenging. Analysis of completer figures shows greater effectiveness than Counterweight UK and Read et al. (2004), indicating clinical effectiveness for those that do engage. Chameleon and NLNY also included

participants with a high degree of deprivation, but as with FITT, participants were entirely self-selecting as opposed to being referred, indicating potentially higher motivational levels.

Attrition in the wider literature

However, despite a considerable body of literature on attrition, few firm conclusions exist (Inelman et al., 2005), with most evidence from specialist, outpatient or research settings (Dalle Grave et al., 2006; Grossi et al., 2006) that translate poorly to real world community contexts. Analysis of easily collected pre-treatment data (for example, education, age, gender) has long shown little ability to reliably predict attrition (Kolotkin & Moore, 1983). These findings are broadly true for the interventions analysed.

Moroshko et al.'s (2011) systematic analysis of attrition across all weight-loss interventions conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA)(PRISMA, 2014) found general trends rather than consistent predictors of attrition. Study heterogeneity and poor reporting, for example, differing definitions of completers, limits conclusions merely to factors likely to contribute to attrition, including greater body dissatisfaction, poorer body image, more previous dieting attempts, lower levels of PA, poorer mental health, lower self-efficacy and lower social support, whilst older age and higher education may be protective.

Attrition & weight loss expectations

Treatment-associated variables include greater travel distance, cost, higher weight loss expectations and/or lower initial weight loss. Although difficult to quantify attrition by specific factors, telephone interviews with non-completers from specialist obesity services, found unsatisfactory results were the second most common reason for attrition (after practical problems) accounting for 22.4% of dropouts (Grossi et al., 2006).

The Counterweight Project Team (2008b), Cameleon and Read et al. (2004) found unrealistic baseline weight loss expectations produced a perceived lack of success, which appears to reduce motivation and engagement, contributing to attrition (Carels, Cacciapaglia, Douglass, Rydin & O'Brien, 2003; Dalle Grave et al. 2006).

Whilst challenging methodological problems mean evidence reviews find inconsistent evidence for high initial weight loss expectations contributing to attrition (Teixeira et al., 2005; Crawford & Glover, 2012), current evidence specific to group behavioural programmes suggests that it is particularly relevant in the early stages, with smaller reduction of BMI in the first two weeks predictive of dropout (Yackobovitch-Govan, Steinberg, Endevelt & Benyamini, 2014), though it appears influential at any stage (Carels et al., 2003). Whilst addressing unrealistic expectations early on could potentially deflect dissatisfaction, it also risks having the opposite effect, by heightening the perceived difficulty of weight management, thereby reducing motivation and leading to attrition (Dalle Grave et al., 2006).

Paradoxically not all attrition shows treatment failure. Some dropouts are due to treatment success, participants believing themselves able to lose weight independently (Grossi et al., 2006).

Complexity of attrition

Moroshko et al. (2011) summarise attrition as caused by the convergence of multiple, complex factors. Research needs to concentrate on the interaction of social-psychological variables (such as beliefs, expectations) with person-treatment suitability (for example, initial weight loss) and the person's practical circumstances (for example, travel distance), whilst recognising the potential influence of theoretically grounded psychological (such as self-efficacy) and behavioural (for example, physical activity) factors, to produce an integrated theory of attrition. This view of a complex interaction is supported by Garip and Yardley's (2011) synthesis of qualitative studies identifying intra- and extra-individual factors similar to the above.

Structural problems in researching attrition

One obvious but understated difficulty in researching engagement and retention issues is access to the very population required. Negligible studies are undertaken on non-completers partly due to structural issues inherent in the research process itself. Ethical requirements demand that research participants must opt-in and be free to withdraw at any point. Since non-completers are largely unresponsive to further contact with interventions (Penn, Ryan & White, 2013), this makes them unlikely to opt in, limiting inclusion in studies. Read et al. (2004) recognising that

dropout timing may have significance, used dropout questionnaires at the end of both the intensive and maintenance phases to engage non-completers, with findings in Table 2. Even studies structured to actively access non-completers, report difficulties, with over 25% untraceable or refusing (Grossi et al., 2006), with the data collection process itself potentially burdensome for respondents.

Only FITT's pilot study (p-FITT) managed exit interviews with non-completers (Gray, Hunt, Mutrie, Anderson, Leishman et al., 2013). Additionally, attrition only measures intervention starters, giving no information on an intervention's reach or uptake within a given population, a relevant factor when considering the public health burden of obesity. This results in the overstatement of completers' views and virtual omission of those of non-completers' (Jones, Furlanetto, Jackson & Kinn, 2007) and non-starters. Consequently the evidence base is fundamentally lacking in validity regarding anybody other than completers. Equally concerning appears to be the poor progress in the general research base at resolving this. The translation of research evidence into real-world interventions presents many challenges (Penn et al., 2011; McCombie et al., 20102), with the potential for conflict between the different requirements of the research environment and the needs of pragmatic service provision in real world contexts (van Weel et al., 2012). An example of this tension is data collection required for evaluation, versus the heavy burden that this places on respondent and provider (Penn et al., 2011), which may explain poor progress in this area.

QUALITATIVE EVALUATION OF INTERVENTIONS

Qualitative evaluation though largely under-represented in health and dietetic research, promotes understanding of the how and why of behaviour, taking research “beyond numbers” (Greenhalgh & Taylor, 1997; Fade 2003). Table 2 demonstrates the varying degrees of qualitative evaluation undertaken to help understand participant experience and inform future development, including questionnaires (Read et al., 2004), focus groups (Cameleon, Counterweight, p-FITT, FITT), in-depth interviews with both participants (NLNY, p-FITT) and group leaders (Counterweight) and a mid intervention workshop with group leaders (p-FITT).

Unfortunately heterogeneity of approach and poor clarity regarding analysis procedures limits comparison and quality assessment (Pilnick & Swift, 2011). Cameleon (Gray et al., 2009) and FITT (Hunt, Gray, Mclean, Smillie, Bunn & Wyke, 2014) used convenience samples for focus groups, whilst p-FITT (Gray, Hunt, Mutrie, Anderson, Leishman et al., 2013) and Counterweight (Counterweight Project Team, 2008b) used purposive sampling for focus groups and in-depth interviews, with NLNY (Penn, Dombrowski et al., 2013) using a mix of purposive and convenience sampling for in-depth interviews. p-FITT was the most comprehensively evaluated, using focus groups (n=26), feedback questionnaires to all completers (n=55) and most significantly, exit interviews with non-completers (n=13), allowing data triangulation to increase validity (Pilnick & Swift, 2011). For both NLNY, p-FITT and FITT qualitative data analysis is comprehensively described, promoting reliability (Pilnick & Swift, 2011), in contrast to only brief

description of Counterweight's analytical procedures. Clearly p-FITT and FITT, whilst to a lesser extent NLNY and Counterweight, as research projects managed by expert multi-disciplinary working groups had resources and necessary expertise (Fade, 2003) to conduct extensive and rigorous qualitative analysis, in contrast to Read et al.'s (2004) smaller scale drop-out questionnaires.

Several common themes relevant to promoting engagement emerged from the qualitative analyses undertaken. Common facilitators of engagement were health concerns (NLNY, p-FITT, FITT, Read et al., 2004), plus the shared experience of "all being new together" helping participants to overcome initial apprehensions about participation ((NLNY, p-FITT, FITT). The football club context greatly enhanced motivation for FITT participants, whilst promoting a shared identity that contributed to group cohesion. NLNY nurtured social support through "like-minded" PA groups. A graded approach to PA increased confidence and self-efficacy, helping to maintain engagement (NLNY, p-FITT, FITT). Cost was frequently identified as a barrier for PA for maintenance of behaviour change (NLNY). Previous negative experiences of PA presented a huge barrier to engagement for large numbers of people (NLNY, p-FITT, FITT). Other barriers included timing of sessions, work and family commitments, lack of childcare (Read et al., 2004).

The relativist ontological position embedded in qualitative research captures an individual's lived experience with all its subjectivity, which is deliberately excluded by quantitative data (Swift & Tischler, 2011). Thus findings can be diverse, even

contradictory, for example, being termed obese reported as a barrier to care (Counterweight Project Team, 2008b), whilst Cameleon cited this as a motivator for engagement (Gray et al., 2009). Accordingly the inherent strength of qualitative research in holding all views valid (Fade & Swift, 2011) potentially becomes a frustrating weakness for service providers trying to determine person-centred services (Bensing, Rimondini & Visser, 2013). However, the frequent and recurrent nature of the themes outlined above, further confirmed by Garip and Yardley's (2011) meta-ethnography, emphasises their near universal relevance and the importance of exploring potential modifications to address them, as summarised in Table 3.

Table 3: Potential modifications for improving person-centredness and reducing attrition of lifestyle weight management programmes.

Modification	Benefit	Challenge	Research needs
Targeted recruitment using open/ self referral (social marketing)	Utilises word of mouth promotion & referral; captures motivated individuals; utilises pre-existing peer support networks; offers ability to target specific groups e.g. men	Resource intensive; risks excluding isolated & least motivated	Integration of social marketing with health inequalities agenda and health service referral patterns
Pre-intervention initial assessment , using motivational interviewing (MI) & health risk (eg. T2DM/CVD) assessment	Establishes initial link with group leader, reducing apprehension and uncertainty; allows individualised tailoring of PA components; identification of health risk and use of MI enhances motivation	Time & resource intensive; training for group leaders	Tailoring of group programs; role of MI in weight management; use of stratified interventions; impact of health risk assessment
Groups matched for cohesiveness	Fosters peer support; allows targeting of specific needs e.g. gender, age, mobility, language needs	Requires high number of groups	Establish hierarchy of factors for matching
Integrated, graduated physical activity , with diverse range of activities	Activity level matched for individual; promotes self-efficacy, social cohesion & long-term behaviour change	Venues/ group leaders able to provide PA	Role of integrated PA components; role of self-efficacy in PA & attrition
Start with realistic weight loss expectation	Manageable goals; reduces sense of disappointment & failure leading to attrition, promotes self-efficacy	Perceived difficulty of weight loss may reduce motivation	Role of self-efficacy in weight management & attrition
Partnership approach, promoting self management	Encourages long-term weight management	Requires autonomous motivation	Quality of motivation; limits of self management
Use of community venues with leisure facilities	Promotes maintenance of PA long-term; enables integrated physical activity; more flexible opening hours than health premises, minimises travel	Difficulty securing venues as high demand at peak times	Potential barriers and facilitators to integrated PA component
Childcare provision to facilitate attendance	Promotes engagement	Resources	Effectiveness

Peer support champions	Promotes social support, aid transition from intensive to maintenance, promotes participant empowerment	Identifying suitable individuals	Role & effectiveness
Low cost/free sessions Reduced cost ongoing sessions	Increased take up of PA short & long-term. Population level: reduces health inequalities	Cost; may promote low commitment, can mask other barriers	Impact of cost on engagement & effectiveness
Diverse timings including evening & weekend	Increased uptake promotes accessibility; timings targeted for specific subgroups: e.g. employed, parents, non working	Cost, venue availability	Optimal timings for specific subgroups
Active follow-up of missed session(s): offer individualised catch-up session	Allows early troubleshooting of problems, offers support, promotes engagement, provides insights into attrition reasons	Staff resources; threshold for stopping follow-up	Impact on attrition, cost/benefit analysis
Maintenance support: Phone/email/text/drop-in/reunion sessions	Reinforces behaviour change techniques; promotes monitoring, social support, reduces feeling of abandonment post intensive phase	Resources; when to stop/mainstream	Optimal maintenance dose/medium

PERSON-CENTRED WEIGHT MANAGEMENT?

The rise of the “personalisation agenda” has seen increased emphasis of patient-centred services, although they remain poorly defined (Health Foundation, 2014).

Much of the disease-specific context of *patient*-centred care is focused on acute care, whilst the more holistic *person*-centred approach has greater relevance for the wider contexts of primary health and social care (Silva, 2014). Pragmatically defined as being built around the person’s needs rather than around the service provider’s needs (Silva, 2014) principles are highlighted in Text Box 1, with potential benefits including improved efficacy, satisfaction and perceived quality of care (Scottish Government, 2010b).

Text Box 1: Principles of person-centred care (Silva, 2014):

- Individualised approach
- Holistic assessment & care, including social & environmental factors
- Regarding the person as expert on themselves
- Recognising autonomy: Shared decision making & enablement
- Accessible, flexible services
- Integrated, coordinated pathway of care
- Ensuring physical, cultural & psychosocial environments of health services promotes person centred care
- Staff trained to communicate & engage people
- Partnership & mutual respect

Progress towards person-centred weight management

Qualitative analyses highlighted some of the common organisational barriers to person-centred care that impact on attrition, for example, the timings of intervention limited to office hours (Jones et al., 2007) and lack of childcare (Grossi et al., 2006; Toth-Capelli et al., 2013). Intervention optimisation through adoption of some of the modifications from Table 3 provides evidences of progress towards person-centred provision. Examples include offering a variety of session timings including evenings (FITT/NLNY), changing the sequence of sessions to emphasise realistic weight loss expectations at the beginning (Counterweight, FITT), use of online tools (FITT), use of follow-up emails and texts (FITT/NLNY) and offering a greater variety of PA (FITT).

Challenges to person-centred weight management

Despite this progress, the road to fully person-centred weight management services has potential difficulties. The primary problem is that at a population level, person-centred services need to represent the people they serve. Currently the overwhelming majority of people represented, are those who, firstly, complete the intervention, whilst secondly, have the time and inclination to contribute to feedback mechanisms such as interviews, focus groups or surveys (Herriot et al., 2008). Consequently, as demonstrated by the studies evaluated, the evidence base is biased in favour of completer-only analyses, whilst fundamentally lacking in validity regarding non-completers, non-starters and completers who have no time or inclination to feedback (Draper & Swift, 2011). Current research methods mean that people whom service providers find most difficult to engage and retain in

interventions, either through lack of time or inclination, are also inherently those most difficult to engage in data collection. Thus, paradoxically, individuals whose views are of *most* relevance to understanding what impacts engagement and retention are *least* likely to be represented by current efforts to develop person-centred services.

Until a way is found to broaden engagement, the development of person-centred services risks being a self-perpetuating cycle, only reflecting the needs of those already engaged. Those already engaged may differ significantly from those not engaged, as indicated by Wills, Crichton, Lorenc & Kelly (2014) using a novel street-intercept method and evidence from disadvantaged populations (Harvey & Ogden, 2014). Consequently, the drive for person-centred care risks potentially promoting existing inequalities.

A further issue for the development of person-centred services is the assumption that people know what they want or what will work for them. In terms of weight management, this is arguable, with evidence indicating that within mainstream interventions, it is not so much choice of intervention as degree of adherence that predicts success (Jolly et al., 2011). Evidence from wider health services shows that people lack credible information and experience regarding treatment options (Joseph-Williams, Elwyn & Edwards, 2014), potentially explaining a tendency to prioritise pre-existing care arrangements, with expressed preferences subject to change depending on context, history of service contact and timing of consultation

(Lawton, Rankin & Elliot, 2013), making determination of person-centred services more complex than it first appears.

Obesity's nature as a chronic condition, with relapse common, means that continuous, applied self-management is necessary for sustained weight management (Stubbs & Lavin, 2013). The interventions evaluated all reflect current guidelines (NICE, 2014) in seeking to equip participants with the skills for long-term self-management of their weight. However, this inherently assumes that people can and want to self-manage, with indications from diabetes care, that for some, this is questionable (Frost, Garside, Cooper & Britten, 2014), with the model of external regulation of behaviour by another person being both familiar and preferable for some (Teixeira, Silva, Mata, Palmeira & Markland, 2012). Hence, whilst service providers and participants may share the same goal of weight loss, they may not agree on how this is best achieved (Ogden et al., 2001).

FUTURE DIRECTIONS

Designing studies to capture data from the unengaged is difficult and ethically challenging. One potential way forward for service providers would be through using active follow up by phone, email or text (Table 3) from the group leader as soon as a participant fails to attend (Acharya et al., 2009). This supportive measure would seek to promote re-engagement, for example, allowing rapid troubleshooting of initial problems with venue or timing, whilst also promoting "real time" feedback on reasons for non-attendance, with potential use of web or text based feedback mechanisms. Whilst limitations exist, not least setting a

pragmatic threshold for ceasing such follow up, it offers more potential than the current default position of passive acceptance of non-attendance, which is potentially a disservice to both providers and participants.

Optimising interventions requires ongoing research into component effectiveness, with the number and diversity of components, compounded by poor reporting of behavioural techniques, hampering definitive conclusions (Greaves et al., 2011; Michie et al., 2011). In view of this, and the heterogeneity outlined between the interventions analysed, it is difficult to draw firm conclusions about what exactly promotes a person-centred approach and reduces attrition, but it appears that targeted approaches, along with individualisation of the group intervention wherever possible offer more potential than the older one-size-fits-all interventions, thus warranting further study (Stubbs & Lavin, 2013).

CONCLUSION

This paper highlights the evolution of non-commercial, community behavioural lifestyle weight management interventions in the UK in the last decade, providing analysis on the likely impact of different variables on engagement, retention and person-centredness. The complex nature of attrition makes research difficult, with currently limited success in identifying reliable predictors. Heterogeneity in dosage, sample populations and ongoing support precludes the drawing of definitive conclusions. Ongoing developments include recruitment through social marketing, integrated physical activity components, tailoring of interventions and pre-intervention assessment. These offer potential in developing a more person-

centred approach, with lower attrition rates, and warrant further evaluation. Given appropriate training, group leader background appears to have minimal impact. Exploration of a person-centred approach to weight management found questions remain regarding application. Minimal evidence from non-completers severely compromises the validity of much of the research base on attrition and movement towards a truly person-centred service. Qualitative evaluation of the interventions varied in depth and quality, with assessment of participant experience informing subsequent intervention optimisation. To progress towards cost-effective obesity interventions that meet people's needs, further research into participant experience in real world settings is merited.

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RESEARCH MODULE XN7211

RESEARCH PROJECT PAPER

**Moving towards person-centred weight management:
Participants' experiences of Get Moving with Counterweight in
Scotland, United Kingdom.**

KEY WORDS: qualitative, group, community, Counterweight

Word count: 4383

JOURNAL SELECTION

The Journal of Human Nutrition and Dietetics would be appropriate for publication of this paper. As the Journal for the British Dietetic Association, evaluation of evolving weight management services in the United Kingdom is highly relevant to its readership, especially as this is a modification of the well-documented Counterweight programme used throughout England and Scotland. Additionally, the journal has an established track record of publishing qualitative research. Other journals of interest such as BMC Public Health require submission fees, currently outwith the author's reach.

ABSTRACT

Aim: To use participant experience to explore factors affecting engagement and retention in a community-based, multi-component, lifestyle group weight management intervention.

Design: Qualitative study using semi-structured interviews with a convenience, purposive sample. Data was thematically analysed.

Setting: The intervention was conducted in Scotland and represented a joint working initiative between National Health Service and Local Authority partners.

Participants: 15 participants were interviewed, including four men, 3 non-completers, and one ethnic minority individual.

Results: Participants experienced high levels of uncertainty and anxiety regarding initial engagement, exacerbated by concerns about participating in physical activity. Individualisation of physical activity was critical to engagement. Group dynamic was facilitated by identifying “someone like me”, whilst extensively heterogeneous groups limited group cohesion. Multiple factors caused non-attendance, with attrition attributed to illness, or finding the intervention ineffective, and associated with socioeconomic deprivation. Diverse timings facilitated access and non-health professional group leaders were well received.

Conclusion: Service providers need to recognise the impact of referral route and psychosocial barriers on initial engagement. A one-size-fits-all approach limits the effectiveness of group-based delivery, meriting continued development of targeted approaches. Individualisation of physical activity is critical to engagement. Non-completers' views can differ from completers, making it essential to include their participant experience data, increasing the validity and robustness of subsequent intervention optimisation.

INTRODUCTION

Obesity (body mass index (BMI) $\geq 30\text{kg/m}^2$) is proving a global health challenge (Ng et al., 2014), with Scottish adults experiencing the highest obesity rates (27.1%) in the United Kingdom (UK) (Scottish Government, 2012). This highlights the need for cost-effective, large-scale treatments, making group interventions a natural focus for development (McCombie, Lean & Haslam, 2012). These require rigorous evaluation to build a strong evidence base and inform service provision.

Weight management interventions commonly struggle with engagement and retention of participants, adversely affecting outcomes and cost-effectiveness (Moroshko, Brennan & O'Brien, 2011). Whilst reasons for attrition are complex and not fully understood, a key feature is the participant's experience of the intervention, often missing from quantitative surveys of attrition rates that oversimplify the issues (Garip & Yardley, 2011). In contrast, qualitative research takes a relativist ontological position using an inductive approach that encourages people to talk in their own words, promoting exploration of the individual's lived experience (Swift & Tischler, 2011). This can identify potential improvements not apparent to service providers (Bensing, Rimondini & Visser, 2013), whilst concurrently encouraging development of a more person-centred service, a key priority for NHS Scotland (Healthcare Improvement Scotland, 2011).

In this context, NHS Lothian developed Get Moving with Counterweight (GMwC), aiming to promote engagement and effectiveness in a cost-efficient manner and conforming to Scottish Intercollegiate Guidelines Network (SIGN) guidance (2010).

An innovative evolution of the Counterweight programme, modifications include an integrated physical activity (PA) component, delivery by non-health professionals, a joint NHS and Local Authority approach, and diverse delivery times in community venues, as outlined in Figure 1. Through evaluating GMwC, this study adds to the substantial evidence base regarding Counterweight (Counterweight Project Team, 2004, 2005, 2008a, 2008b, 2008c, 2012; Morrison et al., 2013), whilst also contributing to the limited published evidence from “real world” weight management service settings within the NHS (Logue, Allardice, Gillies, Forde & Morrison, 2014).

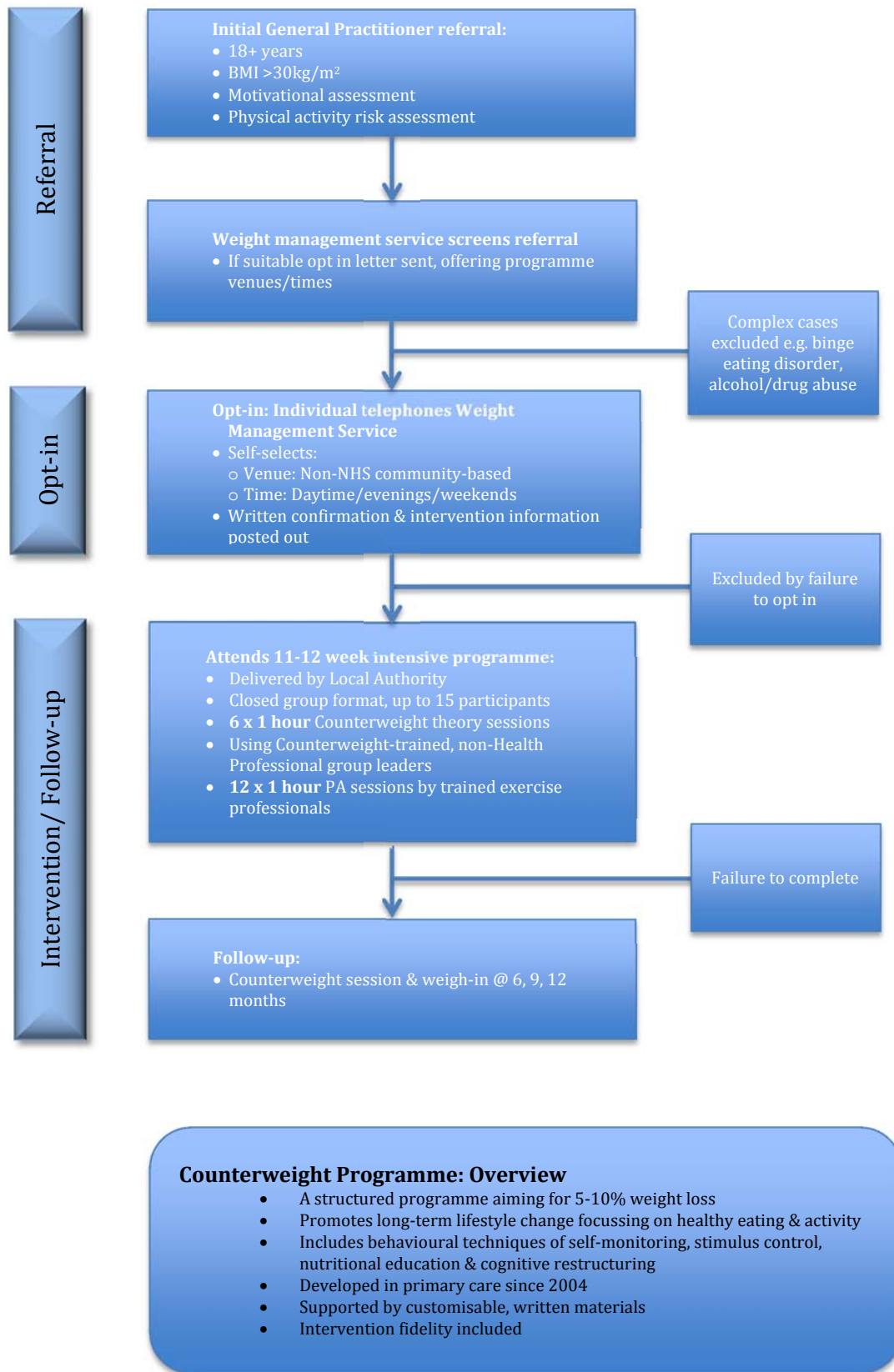


Figure 1: Get Moving with Counterweight: Intervention description

METHOD

Design

This was a qualitative study consisting of in-depth, semi-structured individual interviews, in order to explore factors affecting the engagement and retention of participants within the programme.

Ethics

The NHS deemed the project service evaluation. Consequently ethical approval was obtained from the Faculty of Applied Sciences Research Ethics Committee, University of Chester.

Recruitment and Sampling

Figure 2 outlines study recruitment and data generation. The evaluation focused solely on those who actually started GMwC: Those who failed to opt in were deemed a separate population.

Group leaders gave brief verbal and written information about the evaluation at the first two GMwC sessions. Participants consented to inclusion by providing contact details. Purposive sampling took account of gender, age, group location, ethnic background and completer status (attendance of four or more Counterweight sessions) (Draper & Swift, 2011).

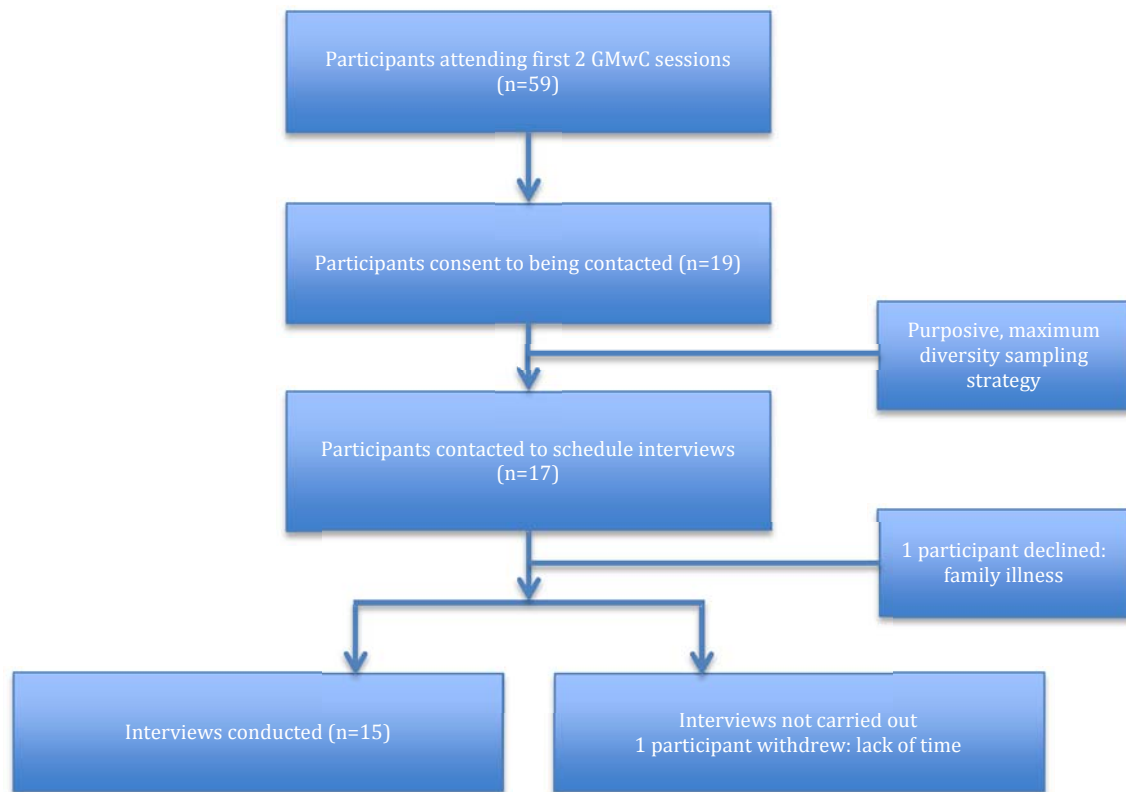


Figure 2: Study recruitment and data generation

Data Collection

Near completion of the intensive intervention phase, the researcher telephoned individuals to arrange face to face interviews, conducted by the researcher either in the individual's home or other mutually agreed space, such as a local café.

A semi-structured interview guide (Appendix 1) informed by a literature review and service providers, ensured that all relevant topics were covered in all interviews. Themes from the interview guide were introduced if the participant did not spontaneously talk about them. Participants were encouraged to use their own words to relate their experience (Draper & Swift, 2011). Unless they started

elsewhere, the opening question for interviews was “Tell me how you found out about GMwC?”

Interviews were 30–60 minutes long, audio-recorded with written informed consent, with each interview informing subsequent ones, making data collection an evolving process. Data collection was stopped after 15 interviews as data saturation (Francis et al., 2010) for completers had been reached and all available non-completers had been interviewed.

Reflexivity analysis

The researcher was unknown to the sample selected, but on initial contact identified both with GMwC and as a health professional to facilitate access and credibility. During interviews she acknowledged group leaders’ names, to promote rapport with participants. The researcher undertook Counterweight training to promote familiarity with intervention components, subsequently delivering the intervention elsewhere, not used for this evaluation. The researcher works for NHS Lothian in a non-weight management role, undertaking this evaluation as part of a Masters degree. Personal characteristics of being a forty two year old, Caucasian female, with BMI 20kg/m² all potentially impacted data collection and analysis (Fade & Swift, 2011). Data collection by audio recorder potentially formalised the initial conversation between researcher and some participants (Draper & Swift, 2011), informality emerging as the interview progressed.

ANALYSIS

Thematic analysis was chosen as an appropriate analytical method, given its foundational and flexible application in qualitative research (Braun & Clarke, 2006; O’Leary, 2010). The researcher undertook all interviews, verbatim transcription and analysis, promoting a high level of acquaintance with the data (Fade & Swift, 2011). Analysis took a theoretical, semantic and realist approach (Braun & Clarke, 2006), considering occurrence across the whole dataset and within individual data pieces.

Initially transcripts were read and coded by hand, resulting in 21 different codes. All codes were then mapped, and considered for areas of commonality, distinction and connection. Emergent themes were identified, collated and tentatively named individualisation versus one-size-fits-all, participant-centred, factors affecting significance of group dynamic, role of uncertainty/expectations. For some of these an evident tension existed between where things had “worked” for participants and what had not.

Further analysis involved re-examining and re-coding in light of this, seeking to distinguish what appeared significant in “making the difference”. The research supervisor checked a sample of coding to confirm validity. All data items within a code were then collated and codes remapped into overarching themes and sub-themes, for example expectations becoming a sub-theme of uncertainty. These were then refined in relation to themselves and each other, seeking to capture the broad essence of each theme (Fade & Swift, 2011). At this point it became clear

that the unique perspectives and characteristics of dissatisfied non-completers, despite being a small proportion of the entire dataset, did not have internal consistency with other themes but required separate treatment (Pilnick & Swift, 2011).

Table 1: Participant characteristics (self-reported)

Partici- pant	Gender	Age years (Mean =52)	Completer / Non- completer	Ethnicity	Physical activity ability	Employment status	SIMD ¹ 2012 decile	Transport availability	Referral requested / advised ²	Previous weight management
1	F	59	N	White British	Walk short distances	Employed	3	public	request	Nil
2	F	74	C	White British	Limited with aids	Retired	10	car	request	RC club
3	M	41	C	White British	Fully able	Benefits	5	car	request	SW, Atkins, WW, SF, private VLCD, personal trainer, specialist psychological input, private med, private BS, online
4	F	58	N	White British	Able	Benefits	1	unknown	request: SM	WW, RC book
5	M	75	C	White British	Able	Retired	10	car	request	DP, considering BS
6	F	35	C	White British	Limited with aids	Employed	4	unknown	advised	WW book
7	F	50	C	White British	Fully able	Employed	10	car	request	WW, SS, private med, Xenical
8	F	60	C	Indo- Mauritian	Walk short distances	Employed	10	car	request: SM	RC group, liquid diet

9	M	55	C	White British	Run 5K	Employed	9	car	request: SM	WW
10	M	67	C	White British	Walks short distances	Employed	10	car	advised	WW
11	F	31	C	White American	Fully able	Employed	8	car	advised	5:2 diet, Curves, SS, MFP
12	F	37	C	White British	Fully able	Benefits	2	bus	request	Individual CWT
13	F	60	C	White British	Able	Retired	10	car	request	RC group
14	F	29	C	White British	Limited with aids	Not working	1	car	request	SF, WW, SW, PMR
15	F	49	N	White British	Able	Benefits	1	bus	request	SW, Curves

Key:

¹ Scottish Index of Multiple Deprivation: a composite measure based on routinely available data in 7 categories of deprivation (income, employment, health & disability, education skills and training, barriers to housing and other services, crime and living environment) with datasets ranked into 10 equal groups, 1 is most deprived area, 10 is least deprived area (Scottish Government, 2014), ² by General Practitioner or hospital consultant, SM=Social Marketing, RC=Rosemary Conley, SW=Slimming World, WW=Weight Watchers, SF=Slimfast, VLCD=Very Low Calorie Diet, med=medication, BS=bariatric surgery, online=online interventions, DP= Diabetic programme via NHS, SS=Scottish Slimmers, MFP=My Fitness Pal, CWT=Counterweight, PMR=Pharmacy Meal Replacements.

RESULTS

Overall between January and September 2014, 604 people were referred, 326 (53%) opted-in, of whom 282 (86%) started the intervention, with 98 of these (35%) completing. Fifteen face-to-face interviews were completed. Table 1 details participant characteristics; age range 29-75 (mean 52) years. Four men, three non-completers and one ethnic minority were interviewed. Despite 80% of the sample being classified as completers, multiple reasons for non-attendance were reported, presented in Table 2. Some of these are clearly independent of service provision, such as illness, whilst others, for example lack of peers, fed into the four overarching themes identified.

Thirteen participants explicitly stated health reasons as their motivation to attend. Two stated weight gain as a trigger to seeking help.

TABLE 2: Reasons for non-attendance

Reason: Self-reported	Number affected	Breakdown by participants
Illness (own)	9	P1, P2, P4, P5, P7, P8, P11, P14, P15
Illness (others)	4	P11, P12, P13, P15
Busy with other priorities	3	P6, P8, P10
Physical activity too easy	3	P3, P9, P12
Previous non-attendance ¹	2	P4, P15
Timing of physical activity	2	P9, P12
Not individualised	2	P12, P15
Unmet expectations	2	P3, P15
Lack of peers	2	P3, P15
Confused over timing	1	P4
Carer role	1	P3
Family stress	1	P3
Information received too late	1	P11
Embarrassment	1	P12
Transport issues	1	P15
Finding no benefit	1	P15
Too infrequent	1	P15

¹ Too embarrassed/not bothered to return

THEMES

UNCERTAINTY

Initial engagement

Despite being a largely help-seeking population (Table 1), participants universally expressed a high level of uncertainty regarding the intervention “I didn’t really know what to expect to be honest” P13/F60C.

Six participants expected one-to-one appointments with professionals, reporting surprise and heightened uncertainty when offered a group intervention: “It was a shock to the system at the beginning because I didn’t know what it was going to be like, you know as I say, I just wanted to speak to a dietitian” P10/M67C.

Previous experience of commercial programmes (Table 1) resulted in anxiety and misconceptions regarding weighing procedures for four subjects and participation in PA for three participants: “It’s all quite scary. You don’t know if every time you get weighed, everybody is going to get told” P14/F29C. Despite this uncertainty, participants frequently articulated a willingness to “have a go”, six acknowledging that this was facilitated by the intervention being free, whilst some believed “it’s better than doing nothing” P15/F49nC.

The theme of uncertainty extended to initial attendance, commonly described as daunting and intimidating. Those attending with someone they knew did not express such concerns, with one man taking his wife (a non-participant) the first week to reduce apprehension.

Physical activity participation

The high prevalence and severity of physical limitations linked to comorbidities (Figure 3), combined with the wide age range of participants (Table 1), resulted in an extremely diverse functional ability ranging from struggling to walk short distances with aids, to regularly running 5km.

These physical limitations caused uncertainty and anxiety regarding participation in PA. Concerns included activities not being accurately matched to ability, both under and over-challenging, exacerbating current conditions and not knowing which activities were appropriate: "I thought, oh, I don't know that I am going to be able to do this, especially when he started on the circuit training...maybe I'm on the wrong course" P13/F60C.

Additionally, half of participants expressed apprehension and a lack of confidence regarding perception by others of not being good enough, with huge potential for embarrassment and intimidation: "I'm not going in there to make a fool of myself...when you're fat... you're thinking is my spare tyre hanging out?"

P4/F58nC. Participant 3 even chose a venue far away from home to reduce the risk of being seen by anyone he knew.

This uncertainty and anxiety persisted, despite over half having a history of previous or current involvement in PA, demonstrating that anxieties were not solely due to performing a new behaviour, but related to unknown environments or resumption after different life events, particularly episodes of ill health:

"I've got 2 false knees...I've wanted to go on a bike since I got my operation on my knees and I was sort of frightened because...I lived on a bike all my life and I wasn't sure if I could get round it" P10/ M67C.

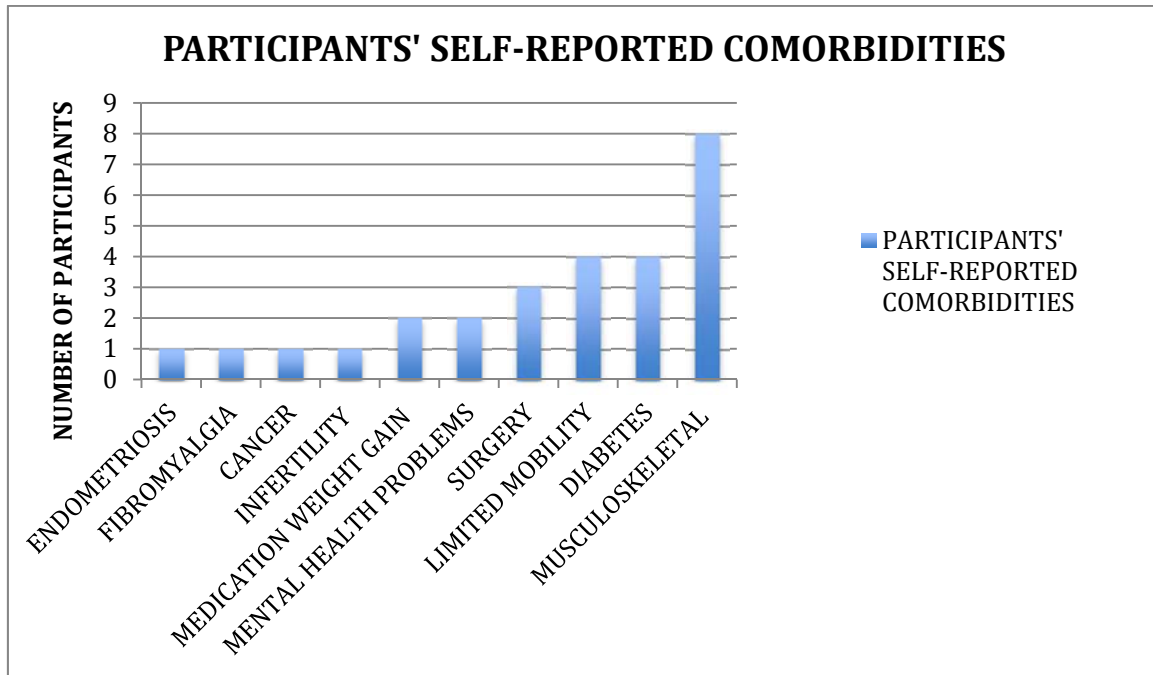


Figure 3: Incidence of participants' self-reported comorbidities

GROUP DYNAMICS: “Someone like me”

Five, mainly female participants, cited the sense of sharing weight struggles and a common goal as a benefit of group delivery, “it was really helpful to talk to other people who were struggling as well” P11/ F31C. Ten participants found the initial group friendly. However, only three women described the group dynamic as beneficial. Critically, this appeared dependent on identifying “someone like me” in their group, who could share their weight loss journey.

In contrast, thirteen participants felt that group dynamic was adversely affected by the degree of diversity within the group, with age, gender, physical ability, and literacy levels all highlighted. Whilst participants expected some diversity, such a wide range across all the aforementioned areas was concerning for eight participants, essentially limiting their ability to identify peers “like me”.

“I would have liked it if there were more people at the same kind of level as me (mobility)...because people that...already like walking and doing things, they have different barriers to someone like me...it’s having someone who knows the barriers and are trying to do the same thing” P6/F35C.

This diversity significantly contributed to six participants’ ambivalence about group participation, resulting in a demotivating and alienating effect on three participants, reducing engagement and retention.

“I’m sitting there and I looked around and everybody there must have been easily 20, maybe 25 years older than me...and I felt SO out of place... I felt... mortified, I thought what am I doing here?” P3/M41C.

Maximising social integration appeared particularly important for those with limiting disabilities that usually experienced isolation in activity environments. For them, finding others of a similar ability created a valued sense of belonging, increasing motivation, and leading to social support that facilitated post-programme PA: “I wasn’t just sat there on my own...because I had to sit down for most of the activities... so it was...actually having somebody that is your designated buddy” P6/ F35C.

Men were generally alone or very small numbers, strongly disadvantaging them in finding “someone like me”, impacting social support, particularly for PA post-intervention, “I’d like to go with somebody, but I’ve nobody to go with” P10/M67C. Five, notably younger, subjects suggested targeting groups, desiring greater compatibility around physical ability, disability, gender and age.

Group leaders

Eleven participants actively commented on the enthusiasm and friendliness of the group leaders, appreciating their availability to answer individual questions and concerns: “Alan was brilliant...he couldn’t have put you any more at ease than what he did” P14/F29C.

No concerns were expressed about them not being a health professional.

PHYSICAL ACTIVITY: The need for individualisation

The theme of individualisation of the group intervention was significant across the entire dataset and individual data, being summed up by “we were all different but achieved the same sort of goal” P7/F50C. Given the diversity in participants’ functional ability, individualisation of the PA component was prioritised by nearly all participants: “You weren’t just left to your own defences. It was like...what is it you would like to do...he tailored it for every single one of us, whatever it was we wanted to achieve” P7/F50C. This included assessment of personal capabilities, provision of alternative activities, jointly agreed targets and integration with other care providers. Customisation was usually provided within the integrated PA sessions, but occasionally involved mutually agreed one-to-one sessions between group leader and participants outwith intervention times, playing a critical role for Participant 3, “to be honest, if it wasn’t for that, I probably would have dropped out” P3/M41C.

Individualisation was critical to positive experiences of PA, as it related to safety, self-efficacy and motivation, frequently performing a substantial role in participants’ beliefs about intervention effectiveness.

P8: “I think he motivated me.

Interviewer: Really? How did he motivate you?

P8: I think by tailoring things...every time I am doing something, he knows what I want to do and what my target is. And he is helping me for these goals, which is a great thing” P8/F60C.

In contrast, four participants found this personalisation lacking, producing a high incidence of mismatch between expectation, ability and provision:

“It wasn’t taken on an individual basis. This is what I thought...they know what my illness is, they know how they can help me, but that wasn’t the case. It was more a case of there’s a group of women...it’s just general and that was it” P15/F49nC.

Consequently participants judged the PA component ineffective, subsequently disengaging. For Participant 15 this contributed to attrition from the whole intervention.

WHAT WORKS: Component significance

Across the dataset, various factors were identified as contributing to intervention effectiveness, indicating that despite being a one-size-fits-all intervention, individuals find different components relevant. Several distinct areas emerged. Counterweight's focus on developing long-term lifestyle change in contrast to a short-term, prescribed diet regime was welcomed by twelve participants: "It's not dieting, it's a healthy eating plan" P4/F59nC. However, even some of those who welcomed it, expressed a contrasting desire for an external "other" to instruct them and be answerable to: "I just need someone else telling me – "you've got to do this" P11/F31C. Another participant rated the whole intervention negatively due to this perceived lack of focus.

Three participants with an extensive weight management journey, found little new nutritional information, instead feeling this acted as a reminder. Their significant components were PA and weigh-ins with an external person: "Getting weighed... knowing that someone is going to do that, it kind of focuses my mind and that works for me" P3/M41C. Weigh-ins were also appreciated for the opportunity for individual input.

In contrast, four participants found the nutritional and behavioural content both new and significant, with portion control and food labelling information highlighted: "I started to work out for myself...that really was it – portion control" P13/F60C.

Input on weight loss expectations met a similarly mixed reaction, with four participants finding the 5% target relieved unrealistic expectations, motivating them by its seeming achievability. Others initially felt it too low for significance, with two finding it demotivating.

Five participants with work or family time pressures, found the external routine provided by GMwC helpful, enabling them to prioritise self-care.

Nearly all completers felt that three monthly follow up was too minimal.

NON-COMPLETERS: A different perspective?

Illness caused early attrition for Participant 1 and Participant 4, who both expressed disappointment over non-completion, with interest in re-engaging. In contrast Participant 15 disengaged because “there just wasn’t enough going on to make me feel it was worth while actually going” P15/F49nC. Participant 12 expressed dissatisfaction despite completing, “if I start something, it has to be finished, whether it is helpful or not” P12/F37C, perhaps best described as a non-engaged completer.

Together their data contrasted strikingly with other participants, but showed internal consistency with each other. They both struggled to understand key messages about lifestyle self-management as opposed to dieting: “It’s not calorie-controlled. It’s not being told you can and can’t have stuff” P12/F37C.

A high reliance on written materials made content inaccessible, “there just wasn’t enough hands on explaining...about the portion sizes. I need to see things more physically than just look at a book” P15/F49nC.

They both felt that contrary to expectations, the individualised help was insufficient for their needs. Participant 15 failed to identify peers in her group, articulating a sense of exclusion due to socioeconomic circumstances:

P15: “Other people were working and...so they had other things to do... they weren’t sitting all day like me...so, in a way again, I felt the odd one out I suppose.’

Interviewer: "...was that quite a strong feeling for you?"

P15: "Well yes because when you were answering certain questions, at what time do you eat?...before you go to work... and if you're working a late shift. Well none of this applies to me. You know, what about people like myself that sit all frigging day, just go out with the dog or try and go out for some shopping and can't actually afford, because they don't work, to really eat healthily? I can't afford it" P15/F49nC.

Combined with transport difficulties and unmet weight loss expectations, these factors led to attrition.

DISCUSSION

Only 16% of those referred completed the intervention, emphasising the need for intervention optimisation. These qualitative findings allow greater understanding of participants' perceptions of an evolving intervention, highlighting areas for potential modifications to improve engagement and retention. Aspects of GMwC were well received by completers, such as diverse delivery times facilitating access, and no concerns regarding group leaders' background.

Initial engagement

Clinical governance requirements, specifically the need to risk assess PA capabilities, necessitated a General Practitioner (GP) referral route, as opposed to social marketing. Consequently participants lacked social support for initial attendance, a known barrier to engagement (Withall, Jago & Fox, 2011). Whilst initial uncertainty regarding expectations is extremely common (Hunt et al., 2014), strategies to reduce this include an initial group or individual information session to set clear expectations, meet group leaders and in some cases enhance engagement through motivational interviewing (Penn, Ryan & White, 2013), although their impact is largely unquantified. Resource constraints meant this was omitted for GMwC, intervention details instead being supplied by post. Further work is required on optimisation of initial engagement, addressing the practical impact of different referral routes and strategies to reduce psychosocial barriers like uncertainty.

Individualisation

Whilst integrated PA was welcomed, as support for PA is one of the hardest assets for obese individuals to access (Rowe & Basi, 2010), it also exacerbated initial anxiety. The marked degree of physical limitation evident in this entry level, non-complex population, underlines the relevance of participants' concerns about safety, ability and embarrassment (Withall et al., 2011). Due to huge diversity, individualisation around PA ability was critical to engagement and achieving improved self-efficacy (Marchant, 2011; Biddle & Mutrie, 2009). Conversely, lack of individualisation appeared to confirm some participants' fears regarding PA being targeted at the wrong level or embarrassing, quickly leading to disengagement. These participants then actively sought alternatives including exercise referral, smart phone apps and "Park Run" 5km events, indicating that provision, rather than motivation, was problematic. This study underlines the importance of PA being graduated and tailored to participants (Penn et al., 2013; Hunt et al., 2014). Failure to do so was one of the most significant factors affecting participant engagement and retention.

Group dynamic

Whilst GMwC attracted diverse participants, the dominant population group, common to many one-size-fits-all interventions were white, middle-class, middle-aged (45-65 years) women (Rowe & Basi, 2010). For men, younger aged and those from socioeconomically deprived areas, this made it difficult to establish meaningful social support within the group, a key benefit of group treatment, known to enhance engagement and behaviour change (Stubbs et al., 2011). Given

such diversity, the sole shared goal of weight loss was inadequate to produce effective group cohesion. Consequently some participants felt that the group, and by association the intervention, was “not for them”.

These results support the increasing adoption of targeted interventions based on market segmentation (Rowe & Basi, 2010; Penn et al., 2013; Drayton, Walker & Mikolowksy, 2014; Wills, Crichton, Lorenc & Kelly, 2014). These promotes cohesive “like-minded” groups, according to various characteristics of age, gender, football team (Hunt et al., 2014), physical ability and socioeconomic background (Penn et al., 2013), facilitating participants to find “someone like me”. Market segmentation also allows tailoring of appropriate materials and communication methods to specific populations (Rowe & Basi, 2010), such as lower literacy populations who require a more practical approach to nutritional education (Russell, Rufus, Fogarty, Fiscella, & Carroll, 2013).

Analysis of the sample by Scottish Index of Multiple Deprivation (SIMD) (Scottish Government, 2014) data, showed that all non-completers came from areas of greater deprivation (deciles 1-3), compared to completers, of whom over 50% were in deciles 8-10 (least deprivation). Whereas overall demographic predictors of attrition are weak or unclear (Moroshko et al., 2011), other UK interventions identified a similar pattern with higher deprivation associated with non-completion (Penn et al., 2013; Morrison et al., 2012). Whilst acknowledging the potential idiosyncrasies and limited generalisability of qualitative findings, the issues of cost, transport and literacy, raised by Participant 12 and Participant 15

are coherent with the wider representation of many obstacles faced by disadvantaged populations in achieving health behaviour change (Ferrer, Cruz, Burge, Bayles & Castilla, 2014). The multiple reasons given in their accounts for non-attendance (Table 2), illustrates the multifactorial complexity of factors affecting disengagement and attrition (Moroshko et al., 2011). Increasing evidence supports specific consideration by obesity treatment providers in targeting the specific needs of disadvantaged populations (Harvey & Ogden, 2014).

Person-centred weight management?

These results highlight the inherent tensions presented in pursuing person-centred care. Similar to Jones, Furlanetto, Jackson & Kinn (2007), a considerable number of participants voiced a perceived need for an external other to facilitate successful weight management, either through monitoring, prescribing food intake or facilitating regular PA. This perceived dependence on external agents, contrasts pointedly with the growing evidence base, supporting acquisition of self-management skills and promotion of autonomous motivation, as key to sustainable weight management (Teixeira, Going, Sardinha & Lohman, 2005; Garip & Yardley, 2011; Stubbs & Lavin, 2013; Teixeira, Silva, Mata, Palmeira & Markland, 2012). This presents service providers an obvious challenge in delivering interventions that promote a long-term approach, whilst simultaneously maintaining engagement with consumers who are unconvinced of their need, desire or ability to self-manage (Wills et al., 2014).

Strengths and Limitations

Although utilising a convenience, purposive sample, this study achieved diversity in terms of age, gender, ethnic minority representation and most importantly, non-completers, albeit in small numbers. This range compares favourably with similar studies (Jones et al., 2007; Herriot, Thomas, Hart, Warren & Truby, 2008), demonstrating greater validity than a sample composed entirely of completers. All non-completers were inherently excluded from intervention completion questionnaires, meaning that in normal care their views remain unrepresented.

In common with other studies (Herriot et al., 2008), data collection and validity were limited by volunteer availability. It is arguable that those who are willing and able to participate in such a study, are those who are most likely to engage and complete an intervention, whilst those who experience barriers in whatever form, are the least likely to volunteer (Garip & Yardley, 2011), threatening validity of the results. Future research designs either need to find innovative ways, such as the street-intercept method employed by Wills et al. (2014) to capture the views of the wider overweight and obese population, or convince ethical reviewers of the benefits of using an opt-out design.

Data was primarily analysed by the lead researcher, increasing the risk of subjective bias (Pilnick & Swift, 2010). Timing constraints meant interviews were largely conducted at the end of the intensive phase, limiting feedback on follow-up provision.

CONCLUSION

This evaluation of the real world development of GMwC uses participant experience from a relatively diverse sample to highlight potential areas for intervention optimisation. These include consideration of referral route and psychosocial barriers to initial engagement. Inclusion of an integrated PA component was largely welcomed, but concerns over physical ability and potential embarrassment exacerbated preliminary anxieties regarding participation. Tailoring of PA to individual capabilities is essential in promoting engagement and efficacy, frequently leading to rapid disengagement if unavailable. A one-size-fits-all approach resulted in widely heterogeneous groups, limiting group cohesion. This finding supports the increasing use of market segmentation to develop targeted approaches. Non-completers' experience differed from those of completers, with indications of an association with socioeconomic deprivation, highlighting an area for future research. The adoption of a person-centred approach contains inherent challenges, the most pressing of which is the urgent need for research into populations other than completers.

APPENDIX 1

Indicative interview topic questions:

1. How did you come to attend Get Moving with Counterweight?
2. What were your expectations of Get Moving with Counterweight?
3. What was your experience of attending the Community Weight Management Group?
4. What motivated you to attend? (Or not?)
5. What were positive aspects that helped you to attend?
6. Can you describe any aspects that were not useful to you?
7. How does it compare with other weight loss approaches that you have tried?
8. Can you suggest any ways in which it could have been made better for yourself?
9. Can you tell me how you would feel about using email/text/web-based technology to support you?
10. How many sessions did you attend?

APPENDIX 2



South East Scotland Research Ethics Service

Waverley Gate
2-4 Waterloo Place
Edinburgh
EH1 3EG

Name: Kath Williamson

Date: 24/04/2013

Your Ref:

Our Ref:

Enquiries to: Alex Bailey

Direct Line:

Email:

Dear Kath,

Project Title: Towards user-centred: a qualitative evaluation of an NHS Lothian Community Weight Management Intervention

You have sought advice from the South East Scotland Research Ethics Service on the above project. This has been considered by the Scientific Officer and you are advised that, based on the submitted documentation (email correspondence and Protocol 2 WM study April 2013), it does not need NHS ethical review under the terms of the Governance Arrangements for Research Ethics Committees (A Harmonised Edition). The advice is based on the following:

- *The project is a survey seeking the views of NHS patients on service delivery*

If the project is considered to be research you may require ethical approval as outlined in The Research Governance Framework for Health and Community Care. You may wish to contact your employer or professional body to arrange this.

For projects that are not research and will be conducted within the NHS you should contact the relevant local Quality Improvement Team(s) who will inform you of the relevant governance procedures required before the project commences.

This letter should not be interpreted as giving a form of ethical approval or any endorsement of the project, but it may be provided to a journal or other body as evidence that NHS ethical approval is not required. However, if you, your sponsor/funder or any NHS organisation feels that the project requires ethical review by an NHS REC, please write setting out your

reasons and we will be pleased to consider further. You should retain a copy of this letter with your project file as evidence that you have sought advice from the South East Scotland Research Ethics Service.
Yours sincerely,

Alex Bailey
Scientific Officer
South East Scotland Research Ethics Service

APPENDIX 3



***Faculty of Applied Sciences
Research Ethics Committee***

frec@chester.ac.uk

Kath Williamson

10th September 2013

Dear Kath,

Study title: **Towards user-centred: a qualitative evaluation of an NHS
Lothian Community Weight Management Intervention.**

FREC reference: **832/13/KW/CSN**

Version number: **1**

Thank you for sending your application to the Faculty of Applied Sciences Research Ethics Committee for review.

I am pleased to confirm ethical approval for the above research, provided that you comply with the conditions set out in the attached document, and adhere to the processes described in your application form and supporting documentation.

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Application Form	1	June 2013
Appendix 1 – List of References	1	June 2013
Appendix 2 – C.V. for Lead Researcher	1	June 2013
Appendix 3 – Letter of Invitation to Participants	1	June 2013
Appendix 4 – Participant Information Sheet	1	June 2013
Appendix 5 – Participant Consent Form	1	June 2013
Appendix 6 – Information Sheet	1	June 2013

Appendix 7 – Interview Schedule	1	June 2013
Appendix 8 – Risk Assessment Form	1	June 2013
Appendix 9 – Initial Contact Form	1	June 2013
Appendix 10 – South East Scotland Research Ethics Service Letter	1	June 2013
Appendix 11 – Summary of Tier 2 Community Weight Management Intervention	1	June 2013
Response to FREC request for further information and clarification		August 2013
Appendix 4.1 – Participant Information Sheet	2	August 2013
Appendix 5.1 – Participant Consent Form	2	August 2013
Appendix 6.1 – Group Leader Information Sheet	2	August 2013

With the Committee's best wishes for the success of this project.

Yours sincerely,

Dr. Stephen Fallows

Chair, Faculty Research Ethics Committee

Enclosures: Standard conditions of approval.

Cc. Supervisor/FREC Representative

APPENDIX 4



Initial contact form

Title of Project:

Towards User-Centred: a qualitative evaluation of Get Moving with Counterweight

Name of Researcher:

Kath Williamson

Name of Participant:

Address:

Post code:

Phone number:

Date of birth:

Please initial box

1. I give permission for my contact details to be used to contact me in relation to evaluation of Get Moving with Counterweight.

☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.

☐

Name of participant

Date

Signature

Please return to:
Kath Williamson, Lothian Weight Management Service

Thank you.

APPENDIX 5

Letter of Invitation



Dear

I am writing to you after you expressed an initial willingness to take part in some research on the NHS Lothian Community Weight management intervention: Get Moving with Counterweight

This is to confirm that you have been selected for the next stage of the study and to ask if you would be willing to be interviewed for 40 – 60 minutes about your experiences of the programme.

Information about the research and what it would involve for you is on the accompanying sheet. The study aims to improve the service for future clients and is also part of a Masters degree that I am studying at the University of Chester.

Please note that whilst we would very much value your opinion, you are still free to withdraw at any time and without any reason.

As the lead researcher, I will be in touch with you soon by telephone to answer any questions that you may have.

In the meantime, if you would like any more information, please telephone NHS Lothian Weight Management Service on , leaving a message for Kath Williamson.

Thank you for your help.

Yours sincerely

Kath Williamson

APPENDIX 6



CONSENT FORM

Title of Project:

Towards User-Centred: a qualitative evaluation of Get Moving with Counterweight

Name of Researcher:

Kath Williamson

Please initial box

- | | |
|---|--------------------------|
| 1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions. | <input type="checkbox"/> |
| 2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected. | <input type="checkbox"/> |
| 3. I consent to the interview being audio recorded. | <input type="checkbox"/> |
| 4. I agree to take part in the above study. | <input type="checkbox"/> |

Name of participant

Date

Signature

Name of researcher

Date

Signature

APPENDIX 7



Group Leader Information Sheet

Title of Project:

Participant evaluation of Get Moving with Counterweight

Name of Researcher:

Kath Williamson

Dear Group Leaders

NHS Lothian Weight Management Service wants to evaluate the user experience of this new community service. To do this we require your help to inform people about the evaluation.

As a group leader, at the **first three sessions** we need you to invite people to take part in the evaluation.

Those that are willing to take part need to complete a form giving contact details and permission to contact them as the programme progresses. Please can you ensure this form is fully completed and sent back in the envelope provided to Kath Williamson, NHS Lothian Weight Management Service, Astley Ainslie Hospital. Thank you for your assistance.

What is the purpose of the study?

As you will be aware, *Get Moving with Counterweight* is a new NHS community-based weight management programme offering support with diet, exercise and behaviour. The aim of the study is to find out users' views of the programme. We want to know what they find helpful and what is unhelpful.

It is very common for people to drop out of these programmes and we want to know more about why this is and what can be done to prevent it. This is important in making the intervention as effective as possible and securing future funding. A written report will be produced at the end of the project. The study findings will be used to inform the future development of the programme.

Why do you need people's contact details and permission to contact them?

Although NHS Lothian already has people's contact details, we cannot automatically use these for research purposes. In order to satisfy the ethical requirements for the study it is important that people choose to take part and do not feel forced to do so.

What does the study involve?

Taking part would involve talking to a researcher for 40 – 60 minutes. This could be over the phone, at the person's home or at NHS premises, whichever is most suitable. Not everyone who agrees to take part will need to do so, as only 10 – 12 participants are required.

Do people have to take part?

No, no one has to take part. It is up to the individual to decide whether or not to take part. If a person decides to take part they are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect the standard of care given in any way.

What will happen next?

All the contact details of those who agree to take part will be collected by the researcher, who will then select a small sample to interview. This sample will be deliberately chosen to include a variety of ages, gender and programme completers and non-completers. Stopping coming to the group does not exclude people from the research, as we are interested in the views of EVERYONE who starts the group and particularly interested in those that do not carry on coming to the group. That is why we need to get contact details at the beginning of the programme.

For those that are selected, they will be sent more detailed information and a consent form by post. The researcher will then contact them by phone to check that they are happy to continue and to arrange the interview. People can still withdraw at this point. The interview will focus on their views and experiences relating to the service provided. The interview will be between them and the researcher and with their permission the meeting will be audio recorded. No one will be identifiable in the final report.

What are the possible disadvantages and risks of taking part?

There are no disadvantages or risks foreseen in taking part in the study.

What are the possible benefits of taking part?

As a participant it is possible that they may welcome the opportunity to share and discuss your views and experiences. By taking part, they will be contributing to the development of the service through sharing your views, which will hopefully benefit participants in the future.

Will the identity of those taking part in the study be kept confidential?

All information that is collected during the course of the research will be kept strictly confidential so that only the researcher carrying out the research and service manager will have access to such information. No one will be identifiable in the final report.

What will happen to the results of the research study?

The results will be written up into a report for NHS Lothian and as a Masters research project for the University of Chester. It is hoped that the findings may be used to continue and improve the service provided by NHS Lothian Weight Management Service. Individuals who participate will not be identified in any subsequent report or publication.

Who is organising and funding the research?

The research is organised and funded by NHS Lothian.

What should I do if I have any concerns about the research?

If you have any concerns about the research, please contact Laurie Eyles, Service lead for NHS Weight Management Service on .

Who may I contact for further information?

If you would like more information about the research please contact:

Kath Williamson on

Thank you for your assistance with this research.

APPENDIX 8



Participant Information Sheet

Title of Project:

Participant evaluation of Get Moving with Counterweight

Name of Researcher:

Kath Williamson

You are being invited to take part in a research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

What is the purpose of the study?

Get Moving with Counterweight was established to provide an NHS community-based weight management programme offering support with diet, exercise and behaviour. The aim of the study is to find out your views of the programme. We want to know what you found **helpful** and what wasn't helpful. If you stopped coming then you are not alone. It is very common for people to drop out of these programmes and we would very much like to know if there was something that would have helped you keep coming. A written report will be produced at the end of the project. The findings from the study will be used to inform the future development of the programme.

Why have I been chosen?

You have been chosen because you are or have been a participant Get Moving with Counterweight and can tell us how you found it.

Do I have to take part?

It is up to you to decide whether or not to take part. If you decide to take part you are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect the standard of care you receive in any way.

What will happen to me if I take part?

If you decide to take part, you will be given this information sheet to keep and asked to sign the consent form. This will give your consent for a researcher from the NHS Lothian to contact you to arrange for an interview. At this meeting, you be asked about your views and experiences relating to the service provided. The interview will be between you and the researcher, and can take place either at home or over the phone and will last up to an hour. With your permission the meeting will be audio recorded. No one will be identifiable in the final report.

What are the possible disadvantages and risks of taking part?

There are no disadvantages or risks foreseen in taking part in the study.

What are the possible benefits of taking part?

As a service user it is possible that you may welcome the opportunity to share and discuss your views and experiences. By taking part, you will be contributing to the development of the service through sharing your views, which will hopefully benefit participants in the future.

What if something goes wrong?

If you wish to complain or have any concerns about any aspect of the way you have been approached or treated during the course of this study, please contact: Professor Sarah Andrew, Dean of the Faculty of Applied Sciences, University of Chester, Parkgate Road, Chester, CH1 4BJ, .

Will my taking part in the study be kept confidential?

All information that is collected about you during the course of the research will be kept strictly confidential so that only the researcher carrying out the research will have access to such information.

What will happen to the results of the research study?

The results will be written up into a report for NHS Lothian. It is hoped that the findings may be used to improve the service provided by NHS Lothian Weight Management Service. The study also forms the research project of a Masters degree undertaken by the researcher, at the University of Chester. Individuals who participate will not be identified in any subsequent report or publication.

Who is organising and funding the research?

The research is funded by NHS Lothian and conducted as part of an MSc in Weight Management within the Department of Clinical Sciences at the University of Chester. The study is organised by Kath Williamson, an MSc student, with supervision from the University of Chester by Dr Stephen Fallows and support from the NHS Lothian Research and Development Department.

Who may I contact for further information?

If you would like more information about the research before you decide whether or not you would be willing to take part, please contact Kath Williamson on _____ or please contact NHS Lothian Weight Management Service on _____ to request a call back from Kath Williamson.

Thank you for your interest in this research.

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